

LISTING OF THE CLAIMS:

1 1. (Currently Amended) A method of making a monomeric functionalized oil,
2 comprising the step of:

3 carbonating an epoxidized vegetable oil,
4 wherein a carbonated vegetable oil that is a monomeric functionalized oil is
5 produced.

1 2. (Original) The method of claim 1, wherein the epoxidized oil is epoxidized
2 soybean oil (ESBO) and the produced carbonated oil is carbonated soybean oil
3 (CSBO).

1 3. (Original) The method of claim 1, wherein the carbonating step includes
2 reacting epoxidized soybean oil with carbon dioxide.

1 4. (Original) The method of claim 1, including a catalyst present for the
2 carbonation.

1 5. (Original) The method of claim 4, wherein the catalyst is
2 tetrabutylammonium bromide (TBAB).

1 6. (Original) The method of claim 1, wherein the epoxidized oil is converted to
2 carbonated oil without any significant side reactions occurring.

1 7. (Currently Amended) A method of producing a carbonated soybean oil,
2 comprising:
3 reacting an epoxidized soybean oil (ESBO) with carbon dioxide, wherein
4 a carbonated soybean oil is produced.

1 8. (Currently Amended) A method of converting an epoxide ring to a five-
2 membered cyclic carbonate ring, comprising a step of:
3 reacting a starting material that contains an epoxide ring with carbon
4 dioxide, wherein the epoxide ring is converted to a five-membered cyclic
5 carbonate ring without any significant side reactions occurring.

9.(Original) The method of claim 8, wherein the starting material is an
epoxidized oil.

10. (Original) The method of claim 9, wherein the starting material is an
epoxidized vegetable oil.

11. (Original) The method of claim 8, wherein the starting material is epoxidized
soybean oil (ESBO).

12. (Original) The method of claim 8, wherein the starting material is converted
to a carbonated oil.

1 13. (Original) The method of claim 12, wherein the starting material is
2 converted to a carbonated vegetable oil.

1 14. (Original) The method of claim 13, wherein the starting material is
2 converted to a carbonated soybean oil (CSBO).

1 15. (Original) The method of claim 8, wherein the starting material is converted
2 to a monomeric reaction product having the cyclic carbonate ring, without a
3 significant side reaction occurring.

16-19. (Canceled)

1 20. (Currently Amended) A method of making a nonisocyanate polyurethane
2 network, comprising:

3 mixing

4 (1) a carbonated vegetable oil and

5 (2) an amine having functionality of at least two;

6 wherein a nonisocyanate polyurethane network is formed.

1 21. (Original) The method of claim 20, wherein the carbonated vegetable oil
2 and amine are mixed stoichiometrically at or within nearly balanced
3 stoichiometry.

1 22. (Original) The method of claim 20, wherein the carbonated vegetable oil is
2 carbonated soybean oil.

1 23. (Original) The method of claim 20, wherein the amine is selected from the
2 group consisting of ethylenediamine (ED), hexamethylenediamine (HMD), and
3 tris(2-aminoethyl) amine (TA).

1 24. (Original) The method of claim 20, wherein a viscous solution is produced
2 from the mixing, and the viscous solution is transferred into a mold, followed by
3 curing.

1 25. (Original) A polyurethane network comprising:
2 a nonisocyanate polyurethane network produced from a carbonated
3 vegetable oil.

1 26. (New) The method of claim 1, wherein the epoxidized vegetable oil
2 is carbonated at atmospheric pressure.